ELSEVIER

Bioelectrochemistry and Bioenergetics 43 (1997) 299–300

BIOELECTROCHEMISTRY AND BIOENERGETICS

Author Index of Volume 43

Ajiki, S.-i. 71
Akyel, Y. 27, 227
Aldunate, J. 151
An, D.J. 253
Ano, T. 123

Bagramyan, K. 129
Balcer-Kubiczek, E.K. 1
Barber, M. 91
Bason, L.M. 35
Belehradek Jr., J. 253, 279
Benko, H. 265
Berg, H. 67
Bersani, F. 77, 221
Bettleheim, A. 19
Binninger, D.M. 83
Bobanović, F. 285
Bodger, P.S. 35
Bollo, S. 151
Brumen, M. 97
Bulychev, A.A. 41

Campbell, C.B.G. 27
Castellani, G. 77
Čemažar, M. 253, 279
Chemeris, N.K. 217
Ci, Y.-X. 293
Crundwell, F.K. 115

Dassen, H.H.A. 41
Davis, C.C. 1
Della Noce, M. 77, 221
Dertinger, H. 51
Ding, L. 173
Di Pietro, R. 221
Donnellan, M. 13

Elder, P.A. 35
Erceg, M. 181

Farrell, J.M. 91
Feng, J. 293
Fesenko, E.E. 217
Franceschi, C. 77, 221
French, P.W. 13

Gapeyev, A.B. 217
Garg, D.K. 105
Gaynor, P.T. 35
Goodman, E.M. 7
Goyal, R.N. 105, 205
Greenebaum, B. 7

Hansson Mild, K. 169
Hara, M. 71
Haram, N.S. 197
Harrison, G.H. 1
Havliš, J. 157

Iafusco, D. 221
Iglič, A. 97

Jain, N. 105
Jarm, T. 253, 279
Jayaram, S. 135
Jiang, Z.-w. 293

Karba, R. 265, 271
Koldayev, V.M. 161
Kotnik, T. 285
Kovalenko, P.G. 165
Krause, D. 91
Kumar, N. 205

Letelier, M.E. 151
Lewis, J.G. 35
Lioi, M.B. 77, 221
Litovitz, T.A. 91
Lubicki, P. 135
Luo, D.-z. 293

Markov, M.S. 233, 239
Mathur, S.P. 27
Matsumoto, N. 61
Mattsson, M.-O. 169
McCready, W.A. 1
McKenzie, D.R. 13
Mehedintu, M. 67
Miklavčič, D. 253, 279, 285
Minić, Z. 181
Mir, L.M. 253, 279
Miyake, J. 71
Monti, D. 77
Morello, A. 151
Motta, M. 221
Muehsam, D.J. 239

Nakamura, K. 123
Nakasono, S. 61
Núñez-Vergara, L.J. 151

Ogi, T. 177
Okuno, K. 123

Pakhomov, A.G. 27, 227
Pakhomova, O.N. 227
Pastushenko, V.Ph. 143
Peleg, N. 19
Pilla, A.A. 233, 239
Ponomarenko, S.P. 165
Prisco, F. 221
Prol, H.K. 27

Quintern, J. 257

Rao, L. 197
Raveh, O. 19
Repetto, Y. 151
Riener, R. 257
Rishpon, J. 19

Safronova, V.G. 217
Saiki, H. 61
Santhanam, K.S.V. 197
Šavrin, R. 265
Sawayama, S. 177
Scarfi, M.R. 77
Scarfì, M.R. 221
Schimmelpfeng, J. 51, 55
Schuman, N.V. 165
Šemrov, D. 265, 271
Serša, G. 253, 279
Shchepin, Y.V. 161
Shi, Z.-M. 1
Shoda, M. 123
Silberman, I. 19
Snel, J.F.H. 41
Spencer, P.L. 151
Squella, J.A. 151
Studničková, M. 157
Sužnjević, D. 181
Svetina, S. 97

Toyotama, H. 71
Trchounian, A. 129
Tsukahara, K.-i. 177
Tuinstra, R. 7

Ungvichian, V. 83

Valenčič, V. 271
Valtersson, U. 169
Van Voorthuysen, T. 41
Verma, M.S. 205
Vidić, J. 181
Vodovnik, L. 265
Vredenberg, W.J. 41
Vučelić, D. 181

Wang, E. 173

Yagishita, T. 177

Zeni, O. 77, 221
Zhang, Y.-F. 1

ELSEVIER

Bioelectrochemistry and Bioenergetics 43 (1997) 301–305

BIOELECTROCHEMISTRY AND BIOENERGETICS

Subject Index of Volume 43

A172
Kinetics of gene expression following exposure to 60 Hz, 2 mT magnetic fields in three human cell lines (Harrison et al.) 1
Astrocytoma
Electromagnetic radiation at 835 MHz changes the morphology and inhibits proliferation of a human astrocytoma cell line (French et al.) 13

Bacillus subtilis
Effect of high magnetic field on the growth of *Bacillus subtilis* measured in a newly developed superconducting magnet biosystem (Nakamura et al.) 123
Bacterial growth rate
The kinetics of the chemiosmotic proton circuit of the iron-oxidizing bacterium *Thiobacillus ferrooxidans* (Crundwell) 115
B-cells
Generation of monoclonal progesterone antibodies by electrofusion techniques (Elder et al.) 35
Bioenergetics
The kinetics of the chemiosmotic proton circuit of the iron-oxidizing bacterium *Thiobacillus ferrooxidans* (Crundwell) 115
Biolectrochemical fuel cells
Behavior of glucose degradation in *Synechocystis* sp. M-203 in bioelectrochemical fuel cells (Yagishita et al.) 177
Bioluminescence
Electric field effects on bioluminescent cells of *Lampito mauritii*: electrofusion and enhancement of bioluminescence intensity (Santhanam et al.) 197
Biotransformation
Nitro radical anion formation from nifurtimox. Part 1: Biological evidences in *Trypanosoma cruzi* (Núñez-Vergara et al.) 151
Bound water molecules
A dynamical systems/Larmor precession model for weak magnetic field bioeffects: ion binding and orientation of bound water molecules (Pilla et al.) 239

Calcium binding kinetics
Weak static magnetic field modulation of myosin phosphorylation in a cell-free preparation: calcium dependence (Markov, Pilla) 233
Calcium ion binding
Weak static magnetic field modulation of myosin phosphorylation in a cell-free preparation: calcium dependence (Markov, Pilla) 233
Calcium ions
Action of 50 Hz magnetic fields on cAMP content in SV40-3T3 cells: dependence on flux density and extracellular calcium (Schimmelpfeng, Dertinger) 51
CDDP
Electrochemotherapy with CDDP on LPB sarcoma: comparison of the anti-tumor effectiveness in immunocompetent and immunodeficient mice (Serša et al.) 279
Cell cycle
Cyclic AMP-levels of retinoic acid primed HL-60 cells in serum-free medium influenced by a 50 Hz magnetic field alone and as co-factor to prostaglandin E_2 (Schimmelpfeng) 55
Cell-free preparation
Weak static magnetic field modulation of myosin phosphorylation in a cell-free preparation: calcium dependence (Markov, Pilla) 233
Cell-free transcription
Effects of magnetic fields on cell-free transcription in *E. coli* and *HeLa* extracts (Tuinstra et al.) 7
Cell proliferation
Cyclic AMP-levels of retinoic acid primed HL-60 cells in serum-free medium influenced by a 50 Hz magnetic field alone and as co-factor to prostaglandin E_2 (Schimmelpfeng) 55
Exposure to 100 Hz pulsed magnetic fields increases micronucleus frequency and cell proliferation in human lymphocytes (Scarfi et al.) 77
CEM-CM3 cells
Ornithine decarboxylase activity and polyamine levels are different in Jurkat and CEM-CM3 cells after exposure to a 50 Hz magnetic field (Valtersson et al.) 169
Chromophore film
Light-induced electrical response of chromatophore film in a semi-wet photocell with an agar layer containing an electron mediator (Ajiki et al.) 71
Cyclic AMP
Action of 50 Hz magnetic fields on cAMP content in SV40-3T3 cells: dependence on flux density and extracellular calcium (Schimmelpfeng, Dertinger) 51
Cyclic voltammetry
Cyclic voltammetry of dye-modified supported bilayer lipid membranes (s-BLMs) (Ding, Wang) 173
Cytokinesis-block micronucleus assay
Cytogenetic effects induced by extremely low frequency pulsed magnetic fields in lymphocytes from Turner's syndrome subjects (Scarfì et al.) 221
Cytoskeleton
Electromagnetic radiation at 835 MHz changes the morphology and inhibits proliferation of a human astrocytoma cell line (French et al.) 13

Differentiation
Cyclic AMP-levels of retinoic acid primed HL-60 cells in serum-free medium influenced by a 50 Hz magnetic field alone and as co-factor to prostaglandin E_2 (Schimmelpfeng) 55
Diffusion
Determination of the inner surface potential of the erythrocyte membrane (Iglič et al.) 97

Direct current
DC electrical stimulation for chronic wound healing enhancement. Part 1. Clinical study and determination of electrical field distribution in the numerical wound model (Karba et al.) 265
DC electrical stimulation for chronic wound healing enhancement. Part 2. Parameter determination by numerical modelling (Šemrov et al.) 271
Dropping mercury electrode
Pulse polarography of soybean trypsin inhibitor in the presence of dithiothreitol (Vidić et al.) 181
Dynamical systems/Larmor precession model
A dynamical systems/Larmor precession model for weak magnetic field bioeffects: ion binding and orientation of bound water molecules (Pilla et al.) 239

E. coli
Decrease of redox potential in the anaerobic growing *E. coli* suspension and proton–potassium exchange (Bagramyan, Trchounian) 129
Electrical conductance
Flash-induced conductance changes in chloroplast thylakoid lamellae. A patch-clamp study (Van Voorthuysen et al.) 41
Electrical stimulation
DC electrical stimulation for chronic wound healing enhancement. Part 1. Clinical study and determination of electrical field distribution in the numerical wound model (Karba et al.) 265
DC electrical stimulation for chronic wound healing enhancement. Part 2. Parameter determination by numerical modelling (Šemrov et al.) 271
Electrical strength of water
High voltage pulse application for the destruction of the Gram-negative bacterium *Yersinia enterocolitica* (Lubicki, Jayaram) 135
Electric field distribution
DC electrical stimulation for chronic wound healing enhancement. Part 1. Clinical study and determination of electrical field distribution in the numerical wound model (Karba et al.) 265
DC electrical stimulation for chronic wound healing enhancement. Part 2. Parameter determination by numerical modelling (Šemrov et al.) 271
Electric field effects
Electric field effects on bioluminescent cells of *Lampito mauritii*: electrofusion and enhancement of bioluminescence intensity (Santhanam et al.) 197
Electric field stimulation
Sensitivity of transmembrane voltage induced by applied electric fields—a theoretical analysis (Kotnik et al.) 285
Electrochemical hypothesis
The kinetics of the chemiosmotic proton circuit of the iron-oxidizing bacterium *Thiobacillus ferrooxidans* (Crundwell) 115
Electrochemical reduction
Electrochemical cultivation of *Thiobacillus ferrooxidans* by potential control (Nakasono et al.) 61
Electrochemotherapy
Electrochemotherapy with CDDP on LPB sarcoma: comparison of the anti-tumor effectiveness in immunocompetent and immunodeficient mice (Serša et al.) 279
Electrofusion
Generation of monoclonal progesterone antibodies by electrofusion techniques (Elder et al.) 35
Electromagnetic field
Cyclic AMP-levels of retinoic acid primed HL-60 cells in serum-free medium influenced by a 50 Hz magnetic field alone and as co-factor to prostaglandin E_2 (Schimmelpfeng) 55
Electromagnetic fields
Electromagnetic radiation at 835 MHz changes the morphology and inhibits proliferation of a human astrocytoma cell line (French et al.) 13
Effects of 60 Hz AC magnetic fields on gene expression following exposure over multiple cell generations using *Saccharomyces cerevisiae* (Binninger, Ungvichian) 83
Effects of low frequency electromagnetic fields on the activity of ornithine decarboxylase in developing chicken embryos (Farrell et al.) 91
Electron mediator
Light-induced electrical response of chromatophore film in a semi-wet photocell with an agar layer containing an electron mediator (Ajiki et al.) 71
Electro-osmosis
Teorell's membrane system oscillates at constant voltage (Pastushenko) 143
Electrooxidation
Electrochemical and enzymic oxidation of guanosine and 8-hydroxyguanosine and the effects of oxidation products in mice (Goyal et al.) 105
Electro-oxidation
Electrochemical and peroxidase-catalysed oxidation of 1-methyluric acid (Goyal et al.) 205
Electroporation
Generation of monoclonal progesterone antibodies by electrofusion techniques (Elder et al.) 35
High voltage pulse application for the destruction of the Gram-negative bacterium *Yersinia enterocolitica* (Lubicki, Jayaram) 135
Biotechnological advances of electroporation of grapevine and sugar beet cells (Kovalenko et al.) 165
Sensitivity of transmembrane voltage induced by applied electric fields—a theoretical analysis (Kotnik et al.) 285
Electrostimulation
Proliferation response of yeast saccharomyces cerevisiae on electromagnetic field parameters (Mehedintu, Berg) 67
Electrotherapy
Tumor treatment by direct electric current. Tumor perfusion changes (Miklavčič et al.) 253
Embryogenesis
Effects of electromagnetic radiation on embryos of sea-urchins (Koldayev, Shchepin) 161
Embryonic development
Effects of low frequency electromagnetic fields on the activity of ornithine decarboxylase in developing chicken embryos (Farrell et al.) 91
EMR
Effects of electromagnetic radiation on embryos of sea-urchins (Koldayev, Shchepin) 161
Enzymatic oxidation
Electrochemical and peroxidase-catalysed oxidation of 1-methyluric acid (Goyal et al.) 205
Enzyme activity
Effects of low frequency electromagnetic fields on the activity of ornithine decarboxylase in developing chicken embryos (Farrell et al.) 91
Enzymic oxidation
Electrochemical and enzymic oxidation of guanosine and 8-hydroxyguanosine and the effects of oxidation products in mice (Goyal et al.) 105
Erythrocyte
Determination of the inner surface potential of the erythrocyte membrane (Iglič et al.) 97
Escherichia coli
Effects of magnetic fields on cell-free transcription in *E. coli* and *HeLa* extracts (Tuinstra et al.) 7

Expression time
Kinetics of gene expression following exposure to 60 Hz, 2 mT magnetic fields in three human cell lines (Harrison et al.) 1

FES control strategies
A physiologically based model of muscle activation verified by electrical stimulation (Riener, Quintern) 257
Finite element method
DC electrical stimulation for chronic wound healing enhancement. Part 2. Parameter determination by numerical modelling (Šemrov et al.) 271
Foreign DNA
Biotechnological advances of electroporation of grapevine and sugar beet cells (Kovalenko et al.) 165
Free radicals
Nitro radical anion formation from nifurtimox. Part 1: Biological evidences in *Trypanosoma cruzi* (Núñez-Vergara et al.) 151
Frequency dependence
Proliferation response of yeast saccharomyces cerevisiae on electromagnetic field parameters (Mehedintu, Berg) 67

Genotoxic effects
Cytogenetic effects induced by extremely low frequency pulsed magnetic fields in lymphocytes from Turner's syndrome subjects (Scarfì et al.) 221
Glucose degradation
Behavior of glucose degradation in *Synechocystis* sp. M-203 in bioelectrochemical fuel cells (Yagishita et al.) 177
Glycolysis
Decrease of redox potential in the anaerobic growing *E. coli* suspension and proton–potassium exchange (Bagramyan, Trchounian) 129
Grapevine
Biotechnological advances of electroporation of grapevine and sugar beet cells (Kovalenko et al.) 165
Growth
Electromagnetic radiation at 835 MHz changes the morphology and inhibits proliferation of a human astrocytoma cell line (French et al.) 13
Decrease of redox potential in the anaerobic growing *E. coli* suspension and proton–potassium exchange (Bagramyan, Trchounian) 129
Guanosine
Electrochemical and enzymic oxidation of guanosine and 8-hydroxyguanosine and the effects of oxidation products in mice (Goyal et al.) 105

HeLa S3
Kinetics of gene expression following exposure to 60 Hz, 2 mT magnetic fields in three human cell lines (Harrison et al.) 1
High voltage pulse
High voltage pulse application for the destruction of the Gram-negative bacterium *Yersinia enterocolitica* (Lubicki, Jayaram) 135
H^+–K^+-exchange
Decrease of redox potential in the anaerobic growing *E. coli* suspension and proton–potassium exchange (Bagramyan, Trchounian) 129
Human lymphocytes
Exposure to 100 Hz pulsed magnetic fields increases micronucleus frequency and cell proliferation in human lymphocytes (Scarfi et al.) 77
8-Hydroxyguanosine
Electrochemical and enzymic oxidation of guanosine and 8-hydroxyguanosine and the effects of oxidation products in mice (Goyal et al.) 105

Immunocompetent mice
Electrochemotherapy with CDDP on LPB sarcoma: comparison of the anti-tumor effectiveness in immunocompetent and immunodeficient mice (Serša et al.) 279
Immunodeficient mice
Electrochemotherapy with CDDP on LPB sarcoma: comparison of the anti-tumor effectiveness in immunocompetent and immunodeficient mice (Serša et al.) 279
Indium–tin–oxide electrode
Light-induced electrical response of chromatophore film in a semi-wet photocell with an agar layer containing an electron mediator (Ajiki et al.) 71
Inhibitor
Behavior of glucose degradation in *Synechocystis* sp. M-203 in bioelectrochemical fuel cells (Yagishita et al.) 177
Inhomogeneous high magnetic field
Effect of high magnetic field on the growth of *Bacillus subtilis* measured in a newly developed superconducting magnet biosystem (Nakamura et al.) 123
In vitro translation
Effects of 60 Hz AC magnetic fields on gene expression following exposure over multiple cell generations using *Saccharomyces cerevisiae* (Binninger, Ungvichian) 83
Ion binding
A dynamical systems/Larmor precession model for weak magnetic field bioeffects: ion binding and orientation of bound water molecules (Pilla et al.) 239

Jurkat cells
Ornithine decarboxylase activity and polyamine levels are different in Jurkat and CEM-CM3 cells after exposure to a 50 Hz magnetic field (Valtersson et al.) 169

Kinetics
The kinetics of the chemiosmotic proton circuit of the iron-oxidizing bacterium *Thiobacillus ferrooxidans* (Crundwell) 115

Lampito mauritii
Electric field effects on bioluminescent cells of *Lampito mauritii*: electrofusion and enhancement of bioluminescence intensity (Santhanam et al.) 197
Low conductivity medium
Sensitivity of transmembrane voltage induced by applied electric fields—a theoretical analysis (Kotnik et al.) 285
Low frequency electromagnetic fields
Action of 50 Hz magnetic fields on cAMP content in SV40-3T3 cells: dependence on flux density and extracellular calcium (Schimmelpfeng, Dertinger) 51
Luminol-dependent chemiluminescence
Inhibition of the production of reactive oxygen species in mouse peritoneal neutrophils by millimeter wave radiation in the near and far field zones of the radiator (Gapeyev et al.) 217
Lymphoblastic leukemia cells
Ornithine decarboxylase activity and polyamine levels are different in Jurkat and CEM-CM3 cells after exposure to a 50 Hz magnetic field (Valtersson et al.) 169

Magnetic field
Effects of magnetic fields on cell-free transcription in *E. coli* and *HeLa* extracts (Tuinstra et al.) 7
MCF7 WT
Kinetics of gene expression following exposure to 60 Hz, 2 mT magnetic fields in three human cell lines (Harrison et al.) 1
Mediator
Behavior of glucose degradation in *Synechocystis* sp. M-203 in bioelectrochemical fuel cells (Yagishita et al.) 177

Meldola blue (MB)
Cyclic voltammetry of dye-modified supported bilayer lipid membranes (s-BLMs) (Ding, Wang) 173
Membrane
Determination of the inner surface potential of the erythrocyte membrane (Iglič et al.) 97
Membrane oscillator
Teorell's membrane system oscillates at constant voltage (Pastushenko) 143
1-Methyluric acid
Electrochemical and peroxidase-catalysed oxidation of 1-methyluric acid (Goyal et al.) 205
Micronuclei
Exposure to 100 Hz pulsed magnetic fields increases micronucleus frequency and cell proliferation in human lymphocytes (Scarfi et al.) 77
Microwaves
Effect of millimeter waves on UV-induced recombination and mutagenesis in yeast (Pakhomova et al.) 227
Millimeter waves
Role of field intensity in the biological effectiveness of millimeter waves at a resonance frequency (Pakhomov et al.) 27
Inhibition of the production of reactive oxygen species in mouse peritoneal neutrophils by millimeter wave radiation in the near and far field zones of the radiator (Gapeyev et al.) 217
Effect of millimeter waves on UV-induced recombination and mutagenesis in yeast (Pakhomova et al.) 227
Monoclonal antibodies
Generation of monoclonal progesterone antibodies by electrofusion techniques (Elder et al.) 35
Mouse peritoneal neutrophils
Inhibition of the production of reactive oxygen species in mouse peritoneal neutrophils by millimeter wave radiation in the near and far field zones of the radiator (Gapeyev et al.) 217
Muscle activation
A physiologically based model of muscle activation verified by electrical stimulation (Riener, Quintern) 257
Mutagenesis
Effect of millimeter waves on UV-induced recombination and mutagenesis in yeast (Pakhomova et al.) 227

Nerve function
Role of field intensity in the biological effectiveness of millimeter waves at a resonance frequency (Pakhomov et al.) 27
Nifurtimox
Nitro radical anion formation from nifurtimox. Part 1: Biological evidences in *Trypanosoma cruzi* (Núñez-Vergara et al.) 151
Nitric oxide
Determination of NO production in melanoma cells using an amperometric nitric oxide sensor (Raveh et al.) 19
NO synthase
Determination of NO production in melanoma cells using an amperometric nitric oxide sensor (Raveh et al.) 19
Numerical modelling
DC electrical stimulation for chronic wound healing enhancement. Part 1. Clinical study and determination of electrical field distribution in the numerical wound model (Karba et al.) 265
DC electrical stimulation for chronic wound healing enhancement. Part 2. Parameter determination by numerical modelling (Šemrov et al.) 271

Ornithine decarboxylase
Effects of low frequency electromagnetic fields on the activity of ornithine decarboxylase in developing chicken embryos (Farrell et al.) 91
Ornithine decarboxylase activity
Ornithine decarboxylase activity and polyamine levels are different in Jurkat and CEM-CM3 cells after exposure to a 50 Hz magnetic field (Valtersson et al.) 169

p53
Kinetics of gene expression following exposure to 60 Hz, 2 mT magnetic fields in three human cell lines (Harrison et al.) 1
Patch-clamp
Flash-induced conductance changes in chloroplast thylakoid lamellae. A patch-clamp study (Van Voorthuysen et al.) 41
Peperomia metallica
Flash-induced conductance changes in chloroplast thylakoid lamellae. A patch-clamp study (Van Voorthuysen et al.) 41
Photocurrent
Flash-induced conductance changes in chloroplast thylakoid lamellae. A patch-clamp study (Van Voorthuysen et al.) 41
Photoresponse
Light-induced electrical response of chromatophore film in a semi-wet photocell with an agar layer containing an electron mediator (Ajiki et al.) 71
Physiological model
A physiologically based model of muscle activation verified by electrical stimulation (Riener, Quintern) 257
Platinum electrode
Electrochemical cultivation of *Thiobacillus ferrooxidans* by potential control (Nakasono et al.) 61
Polyamine levels
Ornithine decarboxylase activity and polyamine levels are different in Jurkat and CEM-CM3 cells after exposure to a 50 Hz magnetic field (Valtersson et al.) 169
Potential control
Electrochemical cultivation of *Thiobacillus ferrooxidans* by potential control (Nakasono et al.) 61
Proton coupling
The kinetics of the chemiosmotic proton circuit of the iron-oxidizing bacterium *Thiobacillus ferrooxidans* (Crundwell) 115
Proton-motive force
The kinetics of the chemiosmotic proton circuit of the iron-oxidizing bacterium *Thiobacillus ferrooxidans* (Crundwell) 115
Pulsed magnetic field
Exposure to 100 Hz pulsed magnetic fields increases micronucleus frequency and cell proliferation in human lymphocytes (Scarfi et al.) 77
Pulsed magnetic fields
Cytogenetic effects induced by extremely low frequency pulsed magnetic fields in lymphocytes from Turner's syndrome subjects (Scarfì et al.) 221
Pulse duration
Sensitivity of transmembrane voltage induced by applied electric fields—a theoretical analysis (Kotnik et al.) 285

Ratio of relative amplitudes
Role of field intensity in the biological effectiveness of millimeter waves at a resonance frequency (Pakhomov et al.) 27
Reactive oxygen species
Inhibition of the production of reactive oxygen species in mouse peritoneal neutrophils by millimeter wave radiation in the near and far field zones of the radiator (Gapeyev et al.) 217
Recombination
Effect of millimeter waves on UV-induced recombination and mutagenesis in yeast (Pakhomova et al.) 227
Redox potential
Decrease of redox potential in the anaerobic growing *E. coli* suspension and proton–potassium exchange (Bagramyan, Trchounian) 129

Rps. viridis
Light-induced electrical response of chromatophore film in a semi-wet photocell with an agar layer containing an electron mediator (Ajiki et al.) 71

Saccharomyces cerevisiae
The voltammetric behavior of *Saccharomyces cerevisiae* (Ci et al.) 293
Sea-urchin
Effects of electromagnetic radiation on embryos of sea-urchins (Koldayev, Shchepin) 161
Second messenger
Cyclic AMP-levels of retinoic acid primed HL-60 cells in serum-free medium influenced by a 50 Hz magnetic field alone and as co-factor to prostaglandin E_2 (Schimmelpfeng) 55
Signal transduction
Action of 50 Hz magnetic fields on cAMP content in SV40-3T3 cells: dependence on flux density and extracellular calcium (Schimmelpfeng, Dertinger) 51
Single-shot electrotherapy
Tumor treatment by direct electric current. Tumor perfusion changes (Miklavčič et al.) 253
Soluble iron
Electrochemical cultivation of *Thiobacillus ferrooxidans* by potential control (Nakasono et al.) 61
Soybean trypsin inhibitor
Pulse polarography of soybean trypsin inhibitor in the presence of dithiothreitol (Vidić et al.) 181
Sterilization
High voltage pulse application for the destruction of the Gram-negative bacterium *Yersinia enterocolitica* (Lubicki, Jayaram) 135
Strongylocentrotus intermedius
Effects of electromagnetic radiation on embryos of sea-urchins (Koldayev, Shchepin) 161
Sugar beet
Biotechnological advances of electroporation of grapevine and sugar beet cells (Kovalenko et al.) 165
Superconducting magnet
Effect of high magnetic field on the growth of *Bacillus subtilis* measured in a newly developed superconducting magnet biosystem (Nakamura et al.) 123
Supported bilayer lipid membranes (s-BLMs)
Cyclic voltammetry of dye-modified supported bilayer lipid membranes (s-BLMs) (Ding, Wang) 173
Surface potential
Determination of the inner surface potential of the erythrocyte membrane (Iglič et al.) 97
Synechocystis sp
Behavior of glucose degradation in *Synechocystis* sp. M-203 in bioelectrochemical fuel cells (Yagishita et al.) 177

Thiobacillus ferrooxidans
Electrochemical cultivation of *Thiobacillus ferrooxidans* by potential control (Nakasono et al.) 61
Thiol–disulphide exchange
Pulse polarography of soybean trypsin inhibitor in the presence of dithiothreitol (Vidić et al.) 181
Thylakoid structure
Flash-induced conductance changes in chloroplast thylakoid lamellae. A patch-clamp study (Van Voorthuysen et al.) 41
Toxicity
Electrochemical and enzymic oxidation of guanosine and 8-hydroxyguanosine and the effects of oxidation products in mice (Goyal et al.) 105
Transcription
Effects of 60 Hz AC magnetic fields on gene expression following exposure over multiple cell generations using *Saccharomyces cerevisiae* (Binninger, Ungvichian) 83
Transmembrane voltage
Sensitivity of transmembrane voltage induced by applied electric fields—a theoretical analysis (Kotnik et al.) 285
Trypanosoma cruzi
Nitro radical anion formation from nifurtimox. Part 1: Biological evidences in *Trypanosoma cruzi* (Núñez-Vergara et al.) 151
Tumor
Tumor treatment by direct electric current. Tumor perfusion changes (Miklavčič et al.) 253
Turner's syndrome
Cytogenetic effects induced by extremely low frequency pulsed magnetic fields in lymphocytes from Turner's syndrome subjects (Scarfì et al.) 221

unc- and *trk*-mutants
Decrease of redox potential in the anaerobic growing *E. coli* suspension and proton–potassium exchange (Bagramyan, Trchounian) 129

Voltage-clamp
Flash-induced conductance changes in chloroplast thylakoid lamellae. A patch-clamp study (Van Voorthuysen et al.) 41
Voltage clamp conditions
Teorell's membrane system oscillates at constant voltage (Pastushenko) 143
Voltammetric behavior
The voltammetric behavior of *Saccharomyces cerevisiae* (Ci et al.) 293

Wound healing
DC electrical stimulation for chronic wound healing enhancement. Part 1. Clinical study and determination of electrical field distribution in the numerical wound model (Karba et al.) 265
DC electrical stimulation for chronic wound healing enhancement. Part 2. Parameter determination by numerical modelling (Šemrov et al.) 271

Yeast
Effects of 60 Hz AC magnetic fields on gene expression following exposure over multiple cell generations using *Saccharomyces cerevisiae* (Binninger, Ungvichian) 83
Effect of millimeter waves on UV-induced recombination and mutagenesis in yeast (Pakhomova et al.) 227
Yeast proliferation
Proliferation response of yeast saccharomyces cerevisiae on electromagnetic field parameters (Mehedintu, Berg) 67